



CONSERVATION ENHANCEMENT ACTIVITY  
E327B (WITH MONTANA SUPPLEMENT)

CONSERVATION  
STEWARDSHIP  
PROGRAM

Establish Monarch butterfly habitat

Conservation Practice 327: Conservation Cover

APPLICABLE LAND USE: Crop (Annual & Mixed); Crop (Perennial);  
Associated Ag Land; Farmstead

RESOURCE CONCERN: Animals

ENHANCEMENT LIFE SPAN: 5 years

Enhancement Description

Seed or plug milkweed (*Asclepias* spp.), and high-value monarch butterfly nectar plants on marginal cropland, field borders, contour buffer strips, and similar areas.

Criteria

- Habitat areas must be at least 0.5 acres.
- Establish and maintain habitat for monarch butterflies as described below:

**A. Monarch butterflies**

- Lists of larval host plants and nectar plants suitable for monarch butterfly habitat are provided in the **Montana** NRCS Field Office Technical Guide (FOTG), **Section 1**.
- A grass component to a monarch habitat planting is commonly needed for ecological stability, weed control, and fuel for prescribed burning. The FOTG provides information on the grass/forb ratio for monarch habitat plantings.
- To provide food (nectar and pollen) for adult monarch butterflies, at least 60% of the forb seeds (pure live seed) in the mix shall be from the monarch butterfly planting list (FOTG). Milkweed seeds are included in meeting the 60% minimum because milkweeds are excellent nectar plants. **The mix will include three** forb species per bloom period (early, mid, or late season) for monarch habitat plantings. Bloom periods are to coincide with monarch presence in the area.



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- To provide food for monarch butterfly larvae, plantings shall include at least one species of milkweed (*Asclepias* spp.) from the FOTG monarch butterfly planting list. All milkweed species used in the mix must be from this list and shall represent at least 1.5% of the total seeds in the mix. The total seeds include pure live seed from both grass and forbs.

Tropical milkweed (*Asclepias curassavica*) shall not be planted.

*Waiver: In some regions, a commercial source of native Asclepias species is limited or not available. In these situations, the NRCS State Conservationist may apply for a waiver, and only require that plantings include monarch nectaring species. In this situation, milkweed seed or plugs are still encouraged to be planted, if possible. If such a waiver is granted, the mix will result in at least 80% of the seed being from the state's monarch nectaring plant list.*

- For additional information on the above four bullets, see *Monarch Butterfly Habitat and Larval Host Plants* and *Montana Biology Technical Note 20 (rev 10)* in Montana FOTG, Section 1, References and Technical Notes, Plant Materials, Pollinators.**
- Any other use of the monarch butterfly habitat area must not compromise its intended purpose.
- If a Monarch Butterfly Wildlife Habitat Evaluation Guide (WHEG) is available for use in the state, a minimum planned Monarch WHEG score of "0.60 will be obtained for the planted area.

### **B. Planting criteria for monarch butterfly habitat**

- Site selection should consider existing weed pressures and available methods of control. Delay planting and conduct an additional growing season of weed control if high weed pressure requires aggressive treatment.
- Site preparation and plant establishment shall be accomplished according to the state's specifications for NRCS Conservation Practice Standard Conservation Cover (Code 327) or Wildlife Habitat Planting (Code 420).
- Successful establishment is when the planting provides at least 80 percent soil cover when visually estimated, and resultant cover consists of at least 500 milkweed plants



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per acre (approx. 1 stem per each 100-sq. ft.), and successful establishment of at least two targeted nectar plants per bloom period when monarchs are present in the state. A milkweed plant is defined as a single stem emerging from the ground.

- Insecticides should not be used in the habitat planting area.
- Herbicides are allowed during site preparation (prior to planting) when it is necessary to eliminate competing weeds from a planting area in order for nectar and pollen producing plants to establish.
- After a monarch habitat enhancement has been planted, herbicides may be spot-sprayed to remove broad-leaf weeds, or grass-selective herbicides may be applied to larger areas to eliminate persistent weedy grasses. Similarly, in the first-year post-planting, the entire site may be mowed 8 to 10 inches high to reduce annual or biennial weeds that persist (site should be mowed just before dominant annual weeds flower).

### C. Operation and maintenance for monarch butterfly habitat

- Management and/or maintenance activities such as mowing, haying, burning, or grazing shall be conducted outside of the season when monarch larvae or adults are present.
- Insecticides should not be used in the habitat planting area.
- The planted habitat areas shall be regularly inspected for invasive and/or noxious plants or other plants that may compromise the purpose of this enhancement. Undesirable species shall be controlled using Individual Plant Treatment methods, for example, spot-spraying with herbicide or physical removal of individual plants.



**Documentation and Implementation Requirements**

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**Participant will:**

- Prior to implementation, provide a map showing the location of proposed habitat areas with notes on land use adjacent to proposed habitat areas to discuss with NRCS staff.
- During implementation, purchase specified seed mix or plant materials that meets monarch-specific seeding or planting requirements provided by NRCS.
- During implementation, follow habitat establishment guidance provided by NRCS in the state specifications for NRCS Conservation Practice Standard Conservation Cover (Code 327).
- After implementation, provide a list of management and/or maintenance activities carried out to manage the habitat areas and the dates on which those activities occurred.
- After implementation, provide photo documentation of monarch habitat areas.

**NRCS will:**

- Prior to implementation, assess habitat condition using a monarch Wildlife Habitat Evaluation Guide (WHEG) to calculate current WHEG score and anticipated WHEG score after implementation of Enhancement. Benchmark WHEG score = \_\_\_\_ Planned Post Implementation WHEG score = \_
- Prior to implementation, provide participant with suitable larval host plants and nectar plants lists.
- Prior to implementation, provide and explain State specifications for NRCS Conservation Practice Standard Conservation Cover (Code 327) or Wildlife Habitat Planting (Code 420).
- Prior to implementation, provide participant with a recommended seed mix and planting specifications per above criteria (grass/forb ratio; number of forb species per bloom period for monarch habitat plantings).
- After implementation, verify successful establishment (per planting criteria above).



**NRCS Documentation Review:**

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

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Participant Name \_\_\_\_\_ Contract Number \_\_\_\_\_

Total Amount Applied \_\_\_\_\_ Fiscal Year Completed \_\_\_\_\_

\_\_\_\_\_  
NRCS Technical Adequacy Signature

\_\_\_\_\_  
Date

